

DEPARTMENT OF THE ARMY
UNITED STATES ARMY MEDICAL DEPARTMENT ACTIVITY
Fort Huachuca, Arizona 85613

MEDDAC MEMO
No. 40-24

15 September 2006

Medical Services
EMERGENCY RESPONSE PROTOCOL, RESUSCITATIVE EQUIPMENT, AND
SUPPLIES

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1. HISTORY. This issue publishes a revision of this publication

2. PURPOSE. To establish Emergency Response Protocols for cardiopulmonary arrest (CODE BLUE) anywhere in the Health Center (building 45001) and the outlying clinics. To ensure that emergency equipment is readily available and properly maintained.

3. SCOPE. These procedures apply to all physicians, nurses, administrators, paraprofessionals, and ancillary personnel who respond to cardiac arrests and other resuscitative emergencies requiring the use of resuscitative equipment and supplies, and to those responsible for maintaining resuscitative equipment and supplies.

4. REFERENCES.

4.1 AED Programs Questions and Answers, <http://www.americanheart.org>

4.2 Basic Cardiac Life Support Manual, American Heart Association, Current Edition.

*This publication supersedes MEDDAC MEMO 40-24, dtd 2 Feb 2005

4.3 Cardiac Science AEDs, Operation and Service Manual, Current Edition.

4.4 MEDDAC Memo 40-146, Provision of Patient Care.

4.5 Applicable JCAHO Standards.

5. DEFINITIONS.

5.1 The term "911" identifies cardiac, respiratory, and resuscitative emergencies requiring immediate medical action to prevent death. This involves calling "911", activating Emergency Medical Services (EMS), and then notifying the appropriate staff members to assist with the resuscitative attempts. Our relationship with EMS is covered in a Memorandum of Understanding (MOU). The MOU can be viewed through Manpower, Resource Management Department, USA MEDDAC.

5.2 CRASH CART is a cart equipped with medical drugs, supplies and equipment for use in emergency situations. The crash carts are located in the Specialty Clinic and Post Anesthesia Recovery Room. Emergency drugs are contained in the top drawer of the crash cart. Drawers 2-6 contain emergency supplies. (APPENDIX B)

5.4 A PORTABLE DEFIBRILLATOR is a compact cardiac monitor DC (Direct Current) defibrillator unit. It combines the capacity for emergency and continuous ECG monitoring with the capability of diagnostic tracings. Portable defibrillators are located on top of the crash carts in the Specialty Clinic and the Post Anesthesia Recovery Room. (Appendix B)

5.5 AUTOMATED EXTERNAL DEFIBRILLATOR (AED) is a self-testing, battery operated automated external defibrillator (AED). After applying the AED electrodes to the patient's chest, the AED automatically analyzes the patient's electrocardiogram (ECG) and advises the operator whether to push the button and deliver a shock. AED's are located in designated areas throughout the Health Center. (Appendix C)

5.6 EMERGENCY RESPONSE CART is a locked cart located in designated clinical areas. Supplies and medications in these boxes are to aid in the resuscitation of the patient presenting with a life-threatening emergency (Appendix D).

5.7 An EMERGENCY RESPONSE TEAM LEADER (ERTL) is the first licensed independent practitioner (LIP) who arrives at the scene of a medical emergency.

6. RESPONSIBILITIES:

6.1 The Commander will appoint a Medical Director of the Emergency Response/AED Program. The Program Director has the authority to manage the program and responsibility to ensure implementation. Program responsibilities include the following: Maintaining written Emergency/AED protocols; ensuring compliance with the protocols; and integrating the program into Ft. Huachuca's EMS response to patients at RWBAHC.

6.2 The Medical Director may designate an Emergency Response/AED Program Coordinator to coordinate the activities and provide operational oversight of the Program. The Coordinator is responsible for the following: maintaining equipment according to manufacture's recommendations; maintaining an adequate inventory of supplies; coordinating training programs and drills; maintaining current training records; and ensuring appropriate documentation is completed after an incident.

6.3 Department and Service Chiefs will ensure that all assigned personnel, who come into direct contact with patients, are trained in Basic Life Support and adhere to this policy. Chiefs will ensure staff members complete annual training (BMAR or recertification) and participate in quarterly mock code drills. Each section is responsible to have an internal emergency response plan that ensures all staff members are familiar with their role in the event of a medical emergency.

6.4 The Non Commissioned Officer in Charge (NCOIC) of each clinical area is responsible for ensuring daily checks and documentation of emergency equipment and supplies; restocking the emergency response cart or AED after use; and monthly checks for expired medications in the emergency cart in cooperation with the pharmacy.

6.5 Pharmacy will ensure the medications in the emergency response carts are checked monthly for expired medications. Replenishment of the drugs used and replacement of expired drugs is the responsibility of the Pharmacy. The Pharmacy will provide a document with all lot numbers and expiration dates that is maintained in the "BLS Smart Book" (APPENDIX E) on top of the Emergency Response Cart. Pharmacy will respond with the medications to emergencies in the main Health Center building. Outlying clinics and WAHC carts will contain medications.

6.6 The Chief, Logistics will ensure that all emergency resuscitation equipment is maintained IAW the Medical Equipment Management Plan and ensure data is retrieved from the AED after an event.

6.7 METS will conduct monthly BLS initial and recertification classes and AED instruction to assigned health care personnel and providers (except contractors) to ensure ongoing certification. Contractors may attend BLS classes on non-paid time on a space available basis or through civilian BLS trainers. METS personnel will also provide annual review of the Emergency Response Protocol and AED Program at the Newcomer's Briefing/Birth Month Annual Review.

6.8 The RWBAHC Safety Officer will conduct monthly inspections of the AEDs to ensure compliance with routine checks.

7. EMERGENCY RESPONSE ALERT SYSTEM: The individual discovering an unresponsive patient or witnessing a cardiopulmonary emergency (not in the Surgical and Operative Area) will:

7.1 Initiate cardiopulmonary resuscitation

7.2 Instruct other personnel to call 911 to activate the Emergency Medical Services (EMS) (APPENDIX F). Instruct other personnel to obtain the emergency response cart and the AED.

7.3 Instruct other personnel to overhead page (3-9288) and announce "CODE BLUE" and the location of the emergency three times. All available privileged providers will respond. In the Main Health Clinic, the pharmacy will respond with the emergency drug box.

7.4 A licensed provider will assume command and control of the emergency medical response and assume role as team leader.

7.5 The team leader will direct the event, identify personnel to remain, and assign roles accordingly. All other responders may return to their assigned duty locations after verbal release by the team leader.

7.6 Personnel identified by the team leader to remain in support of the event will perform the following functions until arrival of the EMS team:

7.6.1 One team member will perform crowd control.

7.6.2 One team member will provide airway management to include oxygen therapy if available. This includes use of the ambu-bag which will be attached to an oxygen source (wall or tank) if available. Identify one team member to perform chest compressions.

7.6.3 One team member will establish intravenous (IV) access with a large bore catheter and start IV fluids of normal saline or lactated ringers, open infusion rate.

7.6.4 One team member will obtain information (brief medical history, medications, precipitating events, allergies, recent illnesses, an emergency contact) from any person who accompanied the patient and provide the information to the team leader.

7.6.5 Continue CPR as directed and apply the AED as soon as available under the direction of the team leader. Emergency medications (i.e. Epinephrine) can be given at the discretion of the team leader. CPR can only be terminated by the team leader or upon the arrival and assumption of basic life support duties by EMS personnel.

7.6.6 The licensed provider in charge will call the Sierra Vista Emergency Room and give a verbal report to the accepting physician. One team member, a licensed nurse when available, will serve as recorder to provide accurate documentation record of the events. The appropriate paperwork will accompany the patient or faxed with a coversheet if not complete at time of transport.

7.7 All outlying clinics will call 9-1-1 to activate EMS for transport and provide life-saving measures as outlined above until the arrival of EMS (APPENDIX E). In event of only one responder on the scene without possibility of the arrival of a second responder, follow the Basic Life Support algorithm.

7.8 As outlined in the RWBAHC Transfer Policy (APPENDIX G), the Deputy Commander of Clinical Services (DCCS) will be notified of all emergencies requiring transfer to a higher level of care.

7.9 Following any AED discharge, the NCOIC of the clinic will ensure the AED is taken to Biomedical Maintenance and the incident data is retrieved from the AED.

7.10 The Emergency Response Team Leader, identified in the incident, will be responsible for completing DA Form 4106. The DA Form 4106 should include data from the AED, and any other available information assessing the incident to include availability of equipment, response of RWBAHC and EMS and supplies needed for the emergency. The completed DA Form 4106 should be submitted Risk Management Coordinator within 72 hours and reviewed during monthly Patient Safety/Risk Management Committee meeting.

7.11 Any patient arresting during a sedation or operative procedure in the Specialty Clinic or the OR will receive ACLS protocol managed by the provider caring for the patient. A 911 call to initiate ACLS transport will occur. An overhead announcement will be made announcing "CODE BLUE", and location. If the code is in the Operating Room, a member of the OR team will meet additional help at the doors of the OR and direct traffic. The above Risk Management procedure will be followed as above.

8. EMERGENCY RESPONSE CART, AED AND CRASH CART MAINTENANCE

8.1 Emergency carts will be secured with a breakaway lock in an area where they are readily accessible; all personnel will be able to verbalize the location of the nearest emergency response cart. The OIC and NCIOC are ultimately responsible for the maintenance and update of the cart in their areas. A checklist of equipment and supplies will be kept on top of the cart in the "BLS Smart Book".

8.2 The security of the breakaway locks will be checked each operational shift in the areas where located by the OIC/NCIOC or appointed staff member. This person will also check the operational status of the AED, the oxygen tank, and the suction machine.

The oxygen tank will be checked by opening the tank and visually inspecting the pounds of oxygen reflected on the tank gauge. The tank should then be closed and the gauge opened to bleed out the line. Any tank with 500 pounds or less oxygen should be replaced.

8.3 All crash carts and emergency response carts will be labeled on the front right of the top drawer with an expiration date, which will be derived from the earliest expiration date on an item contained within the crash cart. This label is to be checked daily by personnel assigned to the area where the crash carts are located and monthly by Pharmacy personnel. Verification of an intact lock number by unit staff during daily checks will serve as proof the crash cart or emergency response cart is intact.

8.4 CMS is the resupply point for crash carts. Any opened crash carts will remain on the unit until a replacement crash cart is issued. Unit personnel will coordinate a resupply of the crash cart with CMS within the same duty day as used and verify the attachment of the numbered breakaway lock. Intact crash carts are to be updated during the month of the labeled expiration date by Pharmacy

8.5 Each unit is responsible for the resupply of the consumable items in the emergency response carts. If medications are used or expired, pharmacy will be notified and the medications will be restocked. The cart will then be relabeled with the earliest expiration date of the next medication to expire.

The proponent of this publication is the Deputy Commander Clinical Services. Users are invited to send comments and suggested improvements on DA 2028 directly to the DCCS, RWBAHC, ATTN: MCXJ-DCCS, Fort Huachuca, AZ 85613-7079.
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FOR THE COMMANDER:

OFFICIAL:

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Deputy Commander for
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DISTRIBUTION: A

APPENDIX A
Emergency Crash Cart Medications

Adult	Quantity
Adenosine 3mg/ml-----	(3)
Amiodarone 50mg/ml -----	(10)
Vasopressin 20u/ml -----	(2)
Sodium Bicarb 50mEq/50ml -----	(4)
Atropine 1 mg/10 ml-----	(4)
Baby Aspirin 81 mg chew tab-----	(1 bottle of 36)
Dextrose 50% 50ml-----	(1)
Epinephrine 1:10,000 10 ml-----	(6)
Epinephrine 1:1000 1 cc vials-----	(2)
Lidocaine 100mg/ml 5 ml-----	(6)
Magnesium Sulfate 50% 10 ml-----	(1)
Procainamide 100mg/ml-----	(4)
Lasix 40mg/10ml -----	(2)

Additional crash cart contents (not in drug tray):

Lidocaine 2gm/500ml drip-----	(1)
Nitroglycerin 50mg/250 ml drip-----	(1)
Nitroglycerin 0.4mg 25 tabs-----	1 bottle
Dopamine 400mg/250 ml drip-----	(1)
Afrin Nasal Spray-----	(1)
IV Solutions:	
NS 250 ml-----	(2)
D5W 250ml-----	(2)
D5w 50 ml-----	(2)
NS 1000 ml-----	(2)
NS 500 ml-----	(2)

Child

Atropine 1 mg/10 ml-----	(2)
Calcium Chloride 10% 10ml-----	(2)
Epinephrine 1:10,000 10 ml-----	(2)
Epinephrine 1:1000 1ml-----	(1)
Lidocaine 10 mg/ml 5 ml-----	(6)
Naloxone 0.4 mg/ml 1 ml-----	(2)
Sodium Bicarb 4.2%%mEq/10ml-----	(2)

APPENDIX B

Crash Cart - CONSUMABLE AND REUSABLE ITEMS

Location:	Quantity
Drawer #2	
3-way stopcock with ext	3
Mini-drip sets 60 gtt/3ml	3
Drawer #3/Tray A	
Syringes	60ml (cath tip)
1	
10ml	3
5ml	3
3ml	2
1ml	2
Tourniquets	4
Needles	18g 10
Butterfly 23ga	2
Butterfly 25ga	2
Blood Tubes	
Red Top 3ml	
Red Top 10ml	
Blue Top 5ml	
Lavendar Top 5ml	
Drawer #3/Tray B	
Betadine Swabs	
Alcohol Prep Pads	
2" tape	
1" tape	
ABG syringe kits	
Betadine swabsticks	
Benzoin swabsticks	
Tegaderm IV dressing	
IV caths: 14g, 16g, 18g, 20g, 22g, 24g	2each
Drawer 4A	
Oral Airway, Adult	
Large, 100ml	1
Med 90ml	1
Small 80ml	1

4x4 sterile gauze sponges	6
2x2 steril gauze sponges	6
Syringe, 10ml	1
Oral Airway, Child 60ml	
Oral Airway, Infant 40mm	1
Nasopharyngeal Airway 30Fr, 32Fr	1
T-Piece	1
Sterile tongue depressors	3
Drawer 4B	
Intraosseous Needle	2
Tracheostomy Tubes	
Size 8	1
Size 6	1
Endotracheal Tubes	
#2.5	1
#3.0	1
#3.5	1
#4.0	1
#4.5	1
#5.0	1
Endotracheal tube stylet, adult	1
Endotracheal tube stylet, child	1
Drawer 5/Tray A	
Sterile Gloves	
6.5	2
7.0	2
7.5	2
8.0	2
8.5	2
Nasogastric Tube 8Fr, 10Fr, 18Fr	1
Yankauer Suction	1
Suction Tubing 6 ft	1
Mask	2
Exam Gloves	1box
Drawer 6/Tray A	
Pediatric Disposable Mask	1
Infant Disposable Mask	1
Neonate Disposable Mask	1
Suction Catheters 10 Fr	1
Humidification Bottle Refill 500ml	1

Oxygen Tubing	1
Nasal Cannula	1
Non-rebreather mask	1
Ambu-bag Infant	1
Triple Lumen Catheter 7Fr	1
Corrugated Tubing	1
No Pour Pack Suction Canister	1
Cut Down Tray	1
Scissors	1

External Equipment and Supplies

Location	Quantity
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Back of Cart	
Backboard	1

Side of Cart	
Oxygen Tank w/regulator	1
Oxygen tank wrench	1
O2 Christmas tree	1

Top of Cart	
EKG pads (3pack)	
Defib pads Adult	
Defib pads Peds	
Blood Pressure cuff, Adult	
Blood Pressure cuff, pediatric	
Ambu bag w/adult mask	
Ambu bag w/peds mask	
Adult defibrillator	
Pediatric paddles	
Portable suction	
Reference Cards (adult and Ped)	
Laryngoscope Handle with batteries	
Extra laryngoscope light bulbs	
Macintosh #3	
Macintosh #4	
Miller #1	
Miller #2	
Miller #3	
Suction Canister Exterior	

APPENDIX C

AED LOCATIONS

1. Military Medicine Clinic, Bldg 51101(1 total)
2. Ray Individual Medical Readiness Clinic, Building #81501 (1 total)
3. Specialty Clinics (Ortho/PT/Optom/PE) (1 total)
4. Pharmacy Waiting Area (1 total)
5. Family Care Clinic A(1 total)
6. Family Care Clinic B (1 total)
7. Weekend Holiday Access Clinic (1 total)
8. Internal Medicine Clinic (1 total)
9. Military Intelligence Student Clinic, Bldg 84450A 1 total)

Appendix D

CONTENTS OF EMERGENCY RESPONSE BOX:

1. Tongue blade (5)
2. Tape roll (1)
3. Tourniquet (2)
4. Alcohol wipes (9)
5. 18G IV cath (5)
6. 20G IV cath (3)
7. BP cuff (1)
8. Pocket mask (2)
9. Oral airway (s, m & lg)
10. Nasal airway (30F & 34F)
11. 10gtts/ml IV tubing (2)
12. NSS 1L (2) **expires:**
13. Aspirin 81mg (1 bottle- minimum 10 tabs) **expires:**
14. Benadryl 50mg/ml (2) **expires:**
15. Epinephrine 1:10,000 Bristojet 10ml (6) **expires:**
16. Nitroglycerin 0.4mg SL (1 bottle- minimum 10 tabs) **expires:**
17. Epinephrine pen (0.3mg) (2)
18. EpiPen Jr (0.15mg) (2)
19. Narcan (0.4ml) (2)
20. Stethoscope
21. LMA #4 and LMA #5
22. Non-rebreather oxygen mask

NOTE: Medications will be kept in the pharmacy. Boxes in the outlying clinics and WAHC will have medications.

ITEMS TO BE KEPT ON THE EMERGENCY RESPONSE CART:

1. Oxygen Tank
2. Suction Machine with tubing, canister, and yankeur
3. Ambubag with mask
4. "SMART BOOK" with BLS protocol, transfer policy, etc

LOCATIONS OF EMERGENCY DRUG BOXES

1. Military Medicine Clinic, Bldg 51101
2. Ray Troop Clinic, Bldg 84550A
3. Pharmacy
4. Pediatric/Weekend Holiday Access Clinic
5. Internal Medicine Clinic
6. Military Intelligence Student Clinic, Bldg 84450A

EXAMPLE SOP FOR EMERGENCY DRUG BOX

MCXJ-MMC

Date

MEMORANDUM FOR RECORD

SUBJECT: Department of Military Medicine (DMM) Clinic Emergency Medication Box Standard Operating Procedure (SOP).

THROUGH: Chief of Pharmacy and Chief of DMM

1. SCOPE: This SOP applies to all medical/nursing personnel who work in DMM.
2. RESPONSIBILITY: It is the responsibility of clinic leadership (Clinic Chief, OIC, or NCOIC) to ensure that assigned personnel adhere to the policy.
3. PACKING LIST: Maintained on outside of box and checked daily (Appendix A).
4. DMM staff document each morning of clinical operations, on the Automatic External Defibrillator (AED) checklist, that the emergency medication box is intact.
5. If the box was opened or the lock is broke, conduct 100% inventory and replace missing items immediately. DMM staff will maintain five locks and order new locks from pharmacy as required.
6. The box will be opened at least once a month to verify contents and expiration dates.
7. POC for this memorandum is below at 533-2627.

APPENDIX E

SMART BOOK TABLE OF CONTENTS:

1. Copy of MEDDAC MEMO 20-24
2. Daily Emergency Cart/AED Checklist Log
3. Protocol for activating 9-1-1, EMS response.
4. AED algorithm and Airway Management techniques.
5. Code Blue/Medical Emergency Flow Sheet.
6. Patient Transfer Checklist.
7. List of Emergency Medication Box contents, additional equipment list, and locations of Emergency Response Carts

APPENDIX F

Ambulance Request Procedure
Place by phones in your area.

CALL 911: State- I am _____, we need an ambulance for ACLS transport of a patient located at _____

Pick One:

1. Raymond W. Bliss Army Health Center, Building #45001
2. Military Medicine Clinic, Building #511101
3. Military Intelligence Student Medical Clinic, Building #84450A
4. Ray Individual Medical Readiness Clinic, Building #81501
5. Preventive Medicine, Riley Barracks, Building #51005

The patient is located in the _____ (i.e.; Pharmacy, Family Care Clinic, Operating Room, Immunizations...).

- Provide the 911 operator with a brief description of the patient's condition (not breathing, full arrest, seizing, broken leg, etc...)
- Give the 911 operator a return phone number they can call if they or the transport team has further questions.
- Ensure the Command is notified by calling 3-9026.
- Plan for the arrival of the Ambulance and position guides at appropriate locations to assist transport team in reaching the patient.

APPENDIX G

Raymond W. Bliss Army Health Center
CHECKLIST FOR PATIENT TRANSFER

Notify DCCS of all transfers at 533-2253 at time of transfer.

Date:_____ Time call placed to EMS:_____

Patient initials:_____ Patient last four of SSN:_____

Diagnosis:_____

Transferring Provider:_____ Accepting
Facility:_____

Nursing Staff:_____

Type of transport requested:

1 BLS (call 911) Ft. Huachuca Fire Dept., will be the 1st to respond. After assessment of patient, then ACLS transport will be called if needed.

Time arrived_____

1 ACLS (call 911) Sierra Vista Ambulance

Time arrived_____

1 Non-emergent. Arizona Ambulance Co. (call 364-3000)

APPENDIX H

Automated External Defibrillator Maintenance Checklist								
MONTH:		CLINIC:			POC:			
DATE	DAILY: STATUS INDICATOR LIGHT GREEN	MONTHLY: OPEN AED LID STATUS LIGHT RED-AFTER 5 SEC GREEN	TWO SETS OF PADS/CHECK EXP DATE	LISTEN FOR VOICE PROMPTS	CLOSE LID. STATUS LIGHT GREEN	MED/ SUPPLY CART CHECK LOCK #	POCKET MASK WITH ONE-WAY VALVE	EXAM GLOVES AND GAUZE OR TOWELS, RAZOR
1								
2								
3								
4								
5								
6								
7								
8								
9								
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